

STUDENT'S  
COPY

# DIAGNOSTIC TEST

## (UJIAN DIAGNOSTIK)

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SCIENCE

FORM 3

MODULE 3

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EXCRETION



MINISTRY OF EDUCATION MALAYSIA

# SCIENCE FORM 3

## MODULE 3: EXCRETION

Arahan:

1. Modul ini mengandungi **tiga puluh lima** soalan. Semua soalan adalah dalam bahasa Inggeris.
2. Modul merangkumi **enam** konstruk yang diuji  
*K1-Memahami soalan dalam Bahasa Inggeris*  
*K3-Memahami istilah sains dalam Bahasa Inggeris*  
*K5-Menguasai konstruk pengetahuan*  
*K6-Menguasai konstruk kefahaman*  
*K7-Menguasai konstruk kemahiran*  
*K10-Memahami pengajaran dan pembelajaran dalam Bahasa Inggeris*
3. Murid hendaklah menulis maklumat diri dalam kertas jawapan objektif disediakan. Murid juga perlu memastikan maklumat konstruk, nombor soalan dan jumlah soalan seperti yang dibaca oleh guru di dalam ruangan disediakan dalam kertas jawapan objektif sebelum ujian.
4. Bagi **soalan objektif**, anda perlu menandakan jawapan dengan **menghitamkan pilihan jawapan** pada pilihan jawapan **A** , **B** , **C** atau **D** pada kertas jawapan objektif.

Contoh:

Antara berikut, yang manakah haiwan?

A. Pokok      B. Kambing      C. Kereta      D. Pen

A

C

D

E

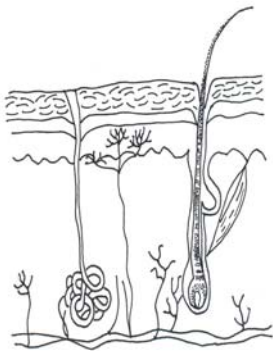
5. Jawab **semua** soalan.

Modul ini mengandungi **18** halaman bercetak

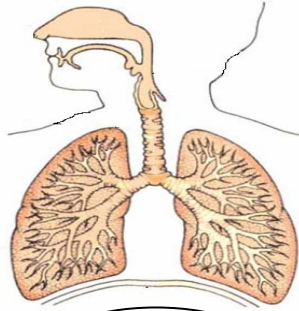
1. The skin excretes water, mineral salts and urea through sweating. Which of the following is **not** released by the skin?

- A Urea
- B Water
- C Mineral salts
- D Carbon dioxide

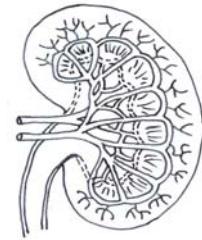
2. The figure shows excretory organs in human



skin



lungs



kidney

How many types of excretory organs are there in the figure?

- A One
- B Two
- C Three

3. The table shows **excretory organ** and their **excretory products**

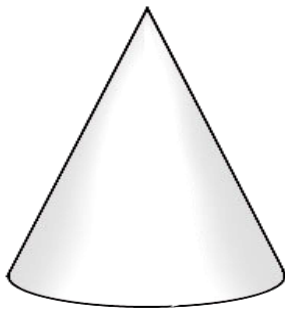
Excretory organ	Excretory products
Kidney	Water, mineral salts, urea
Skin	Water, mineral salts, urea
Lungs	Water and carbon dioxide

Name one common excretory product excreted by every organ

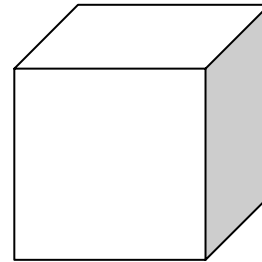
- A Urea
- B Water
- C Mineral salts
- D Carbon dioxide

4. A kidney is bean-shaped.  
Which of the following represents the shape of the kidney?

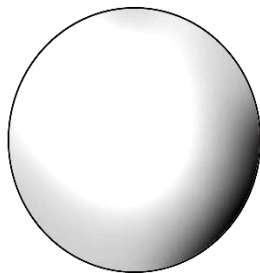
A



C



B



D



5. A kidney consists of an outer part known as cortex and inner part called medulla.

How many parts are there in the kidney?

- A One
- B Two
- C Three
- D Four

6

- The medical condition where kidneys cannot carry out their normal functions.
- Waste products will accumulate and poison the body.

The above statements best describe \_\_\_\_\_

- A kidney failure
- B kidney dialysis
- C kidney transplant

7. The process by which plant loses water through the stomata is called \_\_\_\_\_

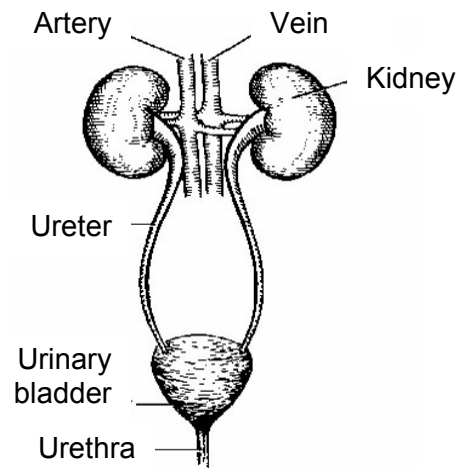
- A excretion
- B transpiration
- C exhalation
- D translocation

8. Name the methods of excreting waste products from the body.

- I Exhaling
  - II Urinating
  - III Sweating
- 
- A I and II
  - B II and III
  - C I,II and III

9. The body system that removes waste products from our body in the form of urine is called \_\_\_\_\_
- A reproductive system
  - B urinary system
  - C digestion system
  - D respiratory system
10. What is excretion?
- A The process of digesting food
  - B The process of taking in air into the lungs
  - C The process of removing waste products from the body
11. What is the treatment for kidney failure?
- A Dialysis
  - B Hydrolysis
  - C Photosynthesis

12. The figure shows a system in the human body



Name the system.

- A Reproductive system
- B Respiratory system
- C Urinary system
- D Digestive system

13. Which excretory product is wrongly matched with its source?

	Excretory product	Source
A	Caffeine	Beans of coffee plants
B	Quinine	Bark of cinchona trees
C	Resin	Stem of pine trees
D	Cocaine	Pods of coca plants

14. Which of the plant excretory products is wrongly matched with its way of elimination?

	Plant excretory product	Ways of elimination
A	Nitrogenous waste product	Plants shed their leaves
B	Mineral salt	In the form of crystals
C	Waste product	Diffusion through xylem

15. Why must urea be excreted from our body?
- A It will become toxic substance in the body
  - B It will increase the acidity of the blood
  - C It will decrease the sugar level in the blood
16. Water and carbon dioxide are excretory products of \_\_\_\_\_
- A skin
  - B lung
  - C kidney
17. The table shows the excretory organs and the excretory products in human

	Organ	Waste products
I	Skin	Water, mineral salts, urea
II	Lung	Water, carbon dioxide, urea
III	Kidney	Water, mineral salts, urea

Which of the following pairs are correct?

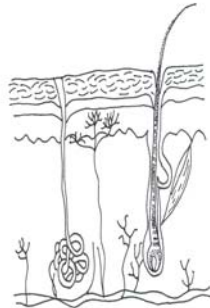
- A I and II
- B I and III
- C II and III
- D I, II and III



18. The figure shows part of the human body



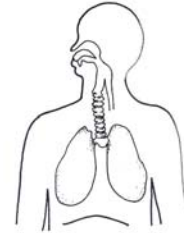
I. Kidney



II. Skin



III. Digestive system

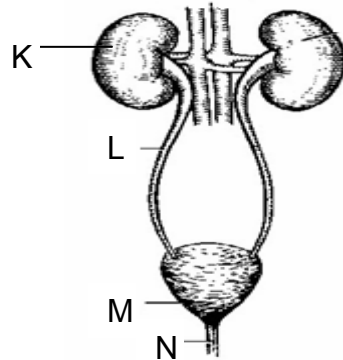


IV. Respiratory system

Which parts are involved in removing waste products from the body?

- A I, II and III
- B I, II and IV
- C I, III and IV
- D II, III and IV

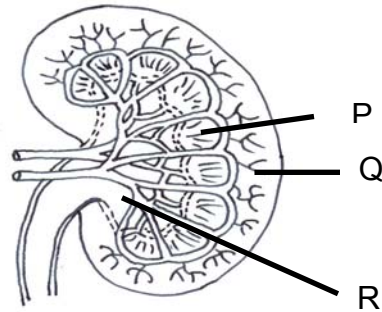
19. The figure shows the human urinary system.



Which parts are labelled correctly?

	K	L	M	N
A	Urinary bladder	Kidney	Urethra	Ureter
B	Urinary bladder	Ureter	Kidney	Urethra
C	Ureter	Urinary bladder	Urethra	Kidney
D	Kidney	Ureter	Urinary bladder	Urethra

20. The figure shows the structure of human kidney.



Which parts are labeled correctly?

	P	Q	R
A	Medulla	Pelvis	Cortex
B	Medulla	Cortex	Pelvis
C	Pelvis	Medulla	Cortex
D	Cortex	Pelvis	Medulla

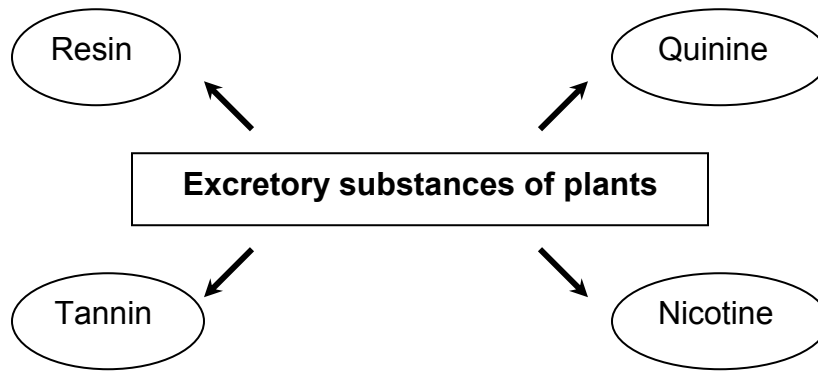
21. Which of the following is **not** an excretory organ?

- A Liver
- B Lungs
- C Kidney

22. Choose the correct structure and its function

	Organ	Function
A	Kidney	Removes waste products from the blood into the urine
B	Ureter	Carries urine from the bladder into the kidney
C	Bladder	Stores water temporarily
D	Urethra	Carries urine from the kidney into the bladder

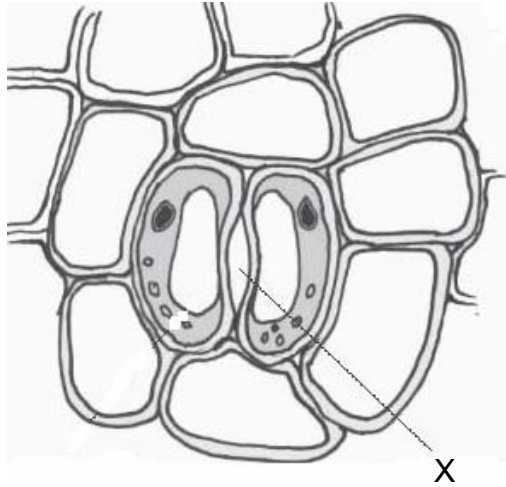
23.



Based on the above information, which of the excretory substances can be used to make medicine?

- A Resin
  - B Quinine
  - C Tannin
  - D Nicotine
24. Healthy kidneys can be maintained by \_\_\_\_\_
- A taking a lot of salt
  - B taking food and medicine
  - C drinking plenty of water
25. The functions of a kidney include
- I filtering the blood
  - II maintaining the pH of the blood
  - III excreting excess water and mineral salts
  - IV maintaining the blood pressure of the body
- A I, II, III
  - B I, II, IV
  - C I, III, IV
  - D II, III, IV

26. The figure shows the structure of a stoma of a plant.



Which of the following waste products are excreted through X?

- I     urea
  - II    water
  - III   oxygen
  - IV    carbon dioxide
- 
- A     I, II and III
  - B     I, II and IV
  - C     I, III and IV
  - D     II, III and IV

27. P, Q, R and S represent structures of the human urinary system

P- kidney	R- bladder
Q- urethra	S- ureter

Arrange the structures to show the flow of urea from the kidney.

A  $P \rightarrow Q \rightarrow R \rightarrow S$

B  $P \rightarrow R \rightarrow S \rightarrow Q$

C  $P \rightarrow S \rightarrow R \rightarrow Q$

28. W, X, Y and Z are steps of urine formation.

W	filtering the blood by the kidneys
X	transport of urine from the kidneys
Y	transport of blood to the kidneys by the venal arteries
Z	formation of urine in the kidneys

Arrange the above process in the correct sequence

A  $Y \rightarrow Z \rightarrow W \rightarrow X$

B  $W \rightarrow Y \rightarrow X \rightarrow Z$

C  $Y \rightarrow W \rightarrow Z \rightarrow X$

D  $X \rightarrow Z \rightarrow W \rightarrow Y$

29. Three workers Raju, Ahmad and Lee drink 300 ml of mineral water each. They work in different rooms at different temperatures. Raju works in a room at 30°C, Ahmad works in a room at 24°C and Lee works in a room at 16°C. After a day, the urine of each of them is collected and measured. Table shows the results of the experiment.

Worker	Raju	Ahmad	Lee
Volume of water consumed	300 ml	300 ml	300 ml
Volume of urine collected	30 ml	50 ml	80 ml

What conclusion can be made from the experiment?

- A A lower temperature of the surrounding causes the volume of urine produced to be less
- B A higher temperature of the surrounding causes the volume of urine produced to be more
- C A lower temperature of the surrounding causes the volume of urine produced to be unchanged
- D A higher temperature of the surrounding causes the volume of urine produced to be less

30. The table shows the substances present in the blood entering the kidney, kidney and urine.

Substances	Blood entering kidney( $\mu\text{g}$ )	Kidney( $\mu\text{g}$ )	Urine( $\mu\text{g}$ )
Mineral salts	10.0 (and water)	10.0 (and water)	17.0 (and water)
Glucose	2.0	2.0	0
Amino acids	0.9	0.9	0
Protein	88.0	0	0
Urea	0.5	20.0	20.0

From the data in the table, choose the correct statement.

- A Amino acids are filtered into the urine
  - B The urine contains urea, mineral salts, water and protein
  - C Glucose are found in the urine and not needed by the body
  - D Protein cannot pass from the blood into the kidney because they are too large
31. The function of human kidney includes:
- I filtration
  - II reabsorption of water
  - III regulation of the chemical composition of body fluids
- A I and II
  - B I and III
  - C II and III
  - D I, II and III



32. Body temperature can be reduced by\_\_\_\_\_

- A    respiring
- B    sweating
- C    inhaling
- D    exhaling

33. Name two waste products that are poisonous from plants.

- I     opium
  - II    urea
  - III   cocaine
  - IV   mercury
- 
- A    I and II
  - B    I and III
  - C    II and III
  - D    III and IV

34. Why is excretion important?

- I     Controls our body temperature
  - II    Helps to maintain our body glucose content.
  - III   Controls the pH of our blood.
  - IV   Controls the concentration of our blood.
- 
- A    I and II
  - B    I and III
  - C    II and III
  - D    III and IV

35 What are the excretory products of plants that are eliminated through stomata of the leaves?

- I Water
- II Oxygen.
- III Carbon dioxide
- IV Nitrogenous waste

- A I and II
- B II and III
- C I,II and III
- D I,II, III and IV



KEMENTERIAN PELAJARAN MALAYSIA  
KERTAS JAWAPAN OBJEKTIF  
Ujian Diagnostik



Nama Pelajar: .....

Tahun/ Tingkatan : ..... 3 ..... Mata Pelajaran: SAINS .....

Nama Sekolah: ..... Modul: ..... 3 .....

**GUNAKAN PENSIL 2B ATAU BB SAHAJA.**

**TENTUKAN TIAP-TIAP TANDA ITU HITAM DAN MEMENUHI KESELURUHAN RUANG.**

PADAMKAN HINGGA HABIS MANA-MANA TANDA YANG ANDA UBAH

**SILA HITAMKAN JAWAPAN DI BAWAH MENGIKUT HURUF JAWAPAN YANG ANDA PILIH**

1 (A) (B) (C) (D) (E)

2 (A) (B) (C) (D) (E)

3 (A) (B) (C) (D) (E)

4 (A) (B) (C) (D) (E)

5 (A) (B) (C) (D) (E)

6 (A) (B) (C) (D) (E)

7 (A) (B) (C) (D) (E)

8 (A) (B) (C) (D) (E)

9 (A) (B) (C) (D) (E)

10 (A) (B) (C) (D) (E)

11 (A) (B) (C) (D) (E)

12 (A) (B) (C) (D) (E)

13 (A) (B) (C) (D) (E)

14 (A) (B) (C) (D) (E)

15 (A) (B) (C) (D) (E)

31 (A) (B) (C) (D) (E)

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30 (A) (B) (C) (D) (E)

	<u>Konstruk</u>	<u>No. Soalan</u>	<u>Jumlah Soalan</u>	<u>Bilangan Soalan Gagal Dijawab</u>	<u>Kegunaan Guru</u>
1	K1	1-5	5	<input type="checkbox"/>	<input type="checkbox"/>
2	K3	6-9	4	<input type="checkbox"/>	<input type="checkbox"/>
3	K5	10-22	13	<input type="checkbox"/>	<input type="checkbox"/>
4	K6	23-26	4	<input type="checkbox"/>	<input type="checkbox"/>
5	K7	27-30	4	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	K10	31-35	5	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>